

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark  
Office  
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ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year)

01 July 1998 (01.07.98)

International application No.

PCT/CA97/00857

Applicant's or agent's file reference

T8463488WO

International filing date (day/month/year)

13 November 1997 (13.11.97)

Priority date (day/month/year)

13 November 1996 (13.11.96)

Applicant

MANNER, D., Lee

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

12 June 1998 (12.06.98)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was



was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

J.M. Vivet

Telephone No.: (41-22) 338.83.38

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>T8463488WO</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) <b>FOR FURTHER ACTION</b>	
International application No. <b>PCT/CA97/00857</b>	International filing date (day/month/year) <b>13/11/1997</b>	Priority date (day/month/year) <b>13/11/1996</b>
International Patent Classification (IPC) or national classification and IPC <b>C10L11/02</b>		
Applicant <b>MANNER, D., Lee</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
 

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☐ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  <b>12/06/1998</b>	Date of completion of this report  <div style="text-align: right;"><b>10.02.99</b></div>
Name and mailing address of the international preliminary examining authority:  <div style="display: flex; align-items: center;"> <div>             European Patent Office              D-80298 Munich              Tel. (+49-89) 2399-0 Tx: 523656 epmu d              Fax: (+49-89) 2399-4465           </div> </div>	Authorized officer  <b>Willsher, C</b>  Telephone No. (+49-89) 2399 8352



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA97/00857

## I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

### Description, pages:

1-26 as originally filed

### Claims, No.:

1-26 as originally filed

### Drawings, sheets:

1/2-2/2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

## IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/CA97/00857

2. ☒ This Authority found that the requirement of unity of invention is not complied and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
- ☒ not complied with for the following reasons:

**see separate sheet**

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:
- ☒ all parts.
- ☐ the parts relating to claims Nos. .

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/CA97/00857

1. Reference is made to the following documents:

D1 = GB-A- 131 472  
D2 = GB-A- 609 069  
D3 = FR-A-2 601 381  
D4 = US-A-2 107 054  
D5 = FR-A-1 555 995  
D6 = FR-A- 970 708  
D7 = US-A-2 170 326  
D8 = US-A-1 496 314.

2. The subject-matter of present claim 1 is merely a solid fuel impregnated into a porous carrier. The ignition, combustion and vaporisation properties may not be employed to technically define the fuel (Article 6 and Rule 6.3(a) PCT), since they represent behavioural features. The said subject-matter is known from D1 (claim 2), D2 (page 1, lines 16-20), D3 (Abstract), D4 (Claim 1), D5 (claims and Fig. 1), D6 (in entirety), D7 (claim) and D8 (in entirety).
3. The subject-matter **common** to independent claims 1 and 23 is the fuel recited in present claim 1. Since this common subject-matter is **known** - see paragraph 2, above), there exists no unifying concept between the fuel of claim 1 and the stove of claim 13. The requirement of Rule 13.1 PCT is thus not met.

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>T8463488W0</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/CA 97/ 00857</b>	International filing date (day/month/year) <b>13/11/1997</b>	(Earliest) Priority Date (day/month/year) <b>13/11/1996</b>
Applicant <b>MANNER, D., Lee</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☐ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.

☐ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the **title**, ☒ the text is approved as submitted by the applicant

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this International Search Report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is:

Figure No. 1a ☒ as suggested by the applicant.

☐ None of the figures.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/CA 97/00857

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C10L11/02 C10L11/04, C10L5/40

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols).

IPC 6 C10L A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 131 472 A (WOODFINE) 18 September 1919	1-3, 11,
Y	see the whole document	12, 17, 18
Y	---	21
X	GB 609 069 A (BARLOW) 21 October 1948	22
	see the whole document	1, 4-18
X	FR 2 601 381 A (CHAKER ELISABETH) 15	1, 4-19
	January 1988	
	see the whole document	
X	US 2 107 054 A (HAYMOND) 1 February 1938	1, 4-18
	see claims; figures	
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&amp;" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

18 March 1998

09/04/1998

Name and mailing address of the ISA

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Authorized officer

Meertens, J

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/CA 97/00857

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 1 555 995 A (EKOPERL) 31 January 1969  see claims; figures ---	1-3, 11-13, 17-19,22
X	FR 970 708 A (HEILPERN) 8 January 1951  see the whole document ---	1-13,17, 18,23-26
X	US 2 170 326 A (HEADLAND) 22 August 1939 see claim; figures ---	1,4-10
X	US 1 496 314 A (IKEDA) 3 June 1924 see claims; figures ---	1,4-18
Y	DE 30 08 644 A (WACKER CHEMIE GMBH) 10 September 1981 see claims ---	21
Y	US 3 536 615 A (BUNN CLINTON O) 27 October 1970 see claims -----	22



# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 97/00857

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 131472 A		NONE	
GB 609069 A		NONE	
FR 2601381 A	15-01-88	NONE	
US 2107054 A	01-02-38	NONE	
FR 1555995 A	31-01-69	CH 488873 A NL 6802523 A	15-04-70 23-08-68
FR 970708 A	08-01-51	NONE	
US 2170326 A	22-08-39	NONE	
US 1496314 A	03-06-24	NONE	
DE 3008644 A	10-09-81	AT 5365 T DK 20681 A EP 0038921 A	15-12-83 07-09-81 04-11-81
US 3536615 A	27-10-70	CA 951646 A DE 2038797 A FR 2057015 A NL 7011596 A	23-07-74 18-02-71 07-05-71 09-02-71



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

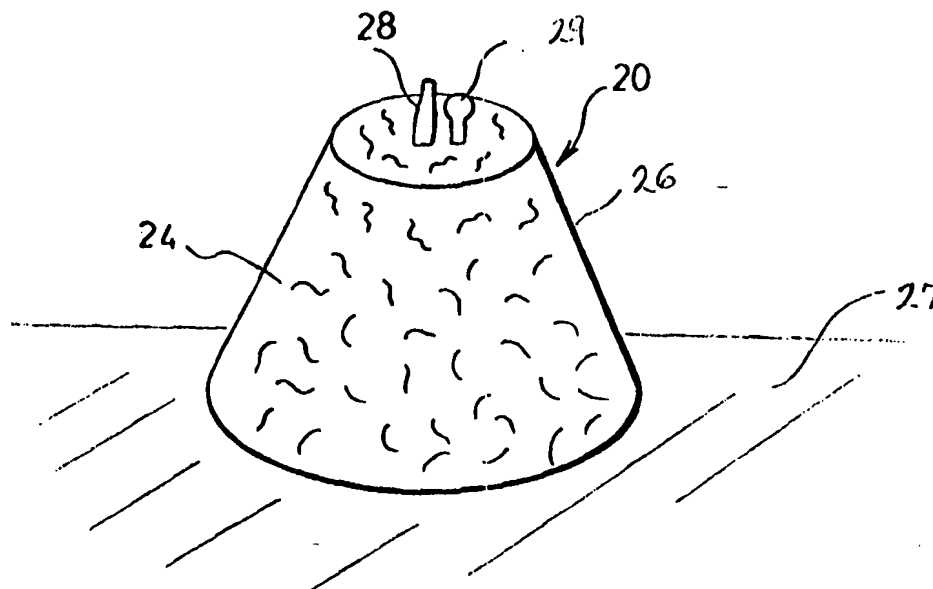
(51) International Patent Classification <sup>6</sup> : <b>C10L 11/02, 11/04, 5/40</b>	<b>A1</b>	(11) International Publication Number: <b>WO 98/21296</b> (43) International Publication Date: 22 May 1998 (22.05.98)
<p>(21) International Application Number: PCT/CA97/00857</p> <p>(22) International Filing Date: 13 November 1997 (13.11.97)</p> <p>(30) Priority Data: 2,190,233 13 November 1996 (13.11.96) CA</p> <p>(71)(72) Applicant and Inventor: MANNER, D., Lee [CA/CA]; 221 Margaret Street, North Bay, Ontario P1B 8G4 (CA).</p> <p>(74) Agents: STRATTON, Robert, P. et al.; Gowling, Strathy &amp; Henderson, Suite 4900, Commerce Court West, Toronto, Ontario M5L 1J3 (CA).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</p>	

(54) Title: COMBUSTIBLE FUEL SOURCE

## (57) Abstract

The combustible fuel source of the invention includes a body comprising a porous carrier and a solid fuel. When combustion is established the fuel is vaporized and combusted on one or more surfaces of the body. In the internal part of the body the solid fuel vaporized and the vaporized fuel moves through the porous carrier to one or more surfaces of the body wherein it is combusted. A portion of the heat resulting from this combustion maintains the vaporization of the solid fuel for continued combustion. A variety of materials can be used as the porous carrier, including combustible materials such as paper fibres, cloth, pulp fibres, powdered coal or charcoal and non-combustible materials such as ground pumice, sand or ceramic materials. A variety of solid fuels can be used, including

paraffin wax, beeswax and other waxes or wax-like materials derived from animal and/or vegetable processing. The body can be shaped into preselected shapes according to an intended use and/or can be placed into stoves or other heating devices as a fuel source.



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